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(54) Title: MONITORING APPARATUS AND METHOD FOR IMPROVING THE ACCURACY AND REPEATABILITY OF ELECTROCHEMICAL CAPACITANCE VOLTAGE (ECV) MEASUREMENTS

(57) Abstract: An apparatus and method for improving the accuracy of Electrochemical Capacitance Voltage (ECV) profiling measurements by alerting the operator to the presence of surface films or gas bubbles during the etching process and by using this in-situ monitoring apparatus to determine the true measurement area at the end of the measurement cycle and using the new value to recalculate the data. By making the area measurement integral to the ECV tool, every sample measurement can be corrected for the true measurement area, leading to improved accuracy and eliminating a large source of error.